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UNITED STATES DISTRICT COURT
NORTHERN DISTRICT OF CALIFORNIA
SAN FRANCISCO DIVISION

DREAMSTIME.COM, LLC, a Florida LLC,

Plaintiff,

v.

GOOGLE, LLC, a Delaware LLC; and DOES
1-10,

Defendants.

Case No. 3:18-CV-01910-WHA

**DECLARATION OF JESSIE
STRICCHIOLA IN SUPPORT OF
PLAINTIFF DREAMSTIME.COM,
LLC'S OPPOSITION TO DEFENDANT
GOOGLE LLC'S MOTION FOR
SUMMARY JUDGMENT**

Judge: Hon. William H. Alsup

Hearing Date: June 11, 2020
Time: 8:30 a.m.

1 I, Jessie Stricchiola, declare as follows:

2 1. I am an employee and founder of Alchemist Media, Inc., a digital marketing firm
3 that provides various internet and search engine marketing consulting services. I have no personal
4 interest in the above-captioned matter and the facts and opinions set forth herein are based on my
5 years of experience and knowledge. Except as otherwise stated, I have personal knowledge of the
6 facts set forth herein and if called as a witness I could and would competently testify thereto.

7 **I. QUALIFICATIONS AND EXPERIENCE**

8 2. I am a graduate of Smith College in Northampton, Massachusetts. I began studying
9 search engine optimization in 1997 and obtained my first employment as a search engine
10 optimization and internet marketing consultant utilizing web analytics and performing web traffic
11 analysis in 1998. Since that time, I have developed, implemented, and optimized internet and
12 search marketing strategies for various types of businesses, including educational, commercial, non-
13 profit, and product and service-based organizations. I founded Alchemist Media, Inc. in 2002.

14 3. I am co-author of *The Art of SEO*, a treatise on the practice of search engine
15 optimization—the process of optimizing and publishing content for discoverability on the web.
16 Published by O'Reilly Media, (1st ed. 2009, 2d ed. 2012, 3d ed. May 2015). *The Art of SEO* has
17 been used as required or recommended reading in U.S. and international universities, including
18 Georgetown University, the University of Southern California, University of California-Los
19 Angeles, University of California-San Diego, University of California-Davis, the University of
20 Wisconsin, Syracuse University, the University of Mumbai, the City University of Hong Kong, and
21 others.

22 4. I have been a speaker at various search engine and internet industry conferences
23 since 2002 including Ad:tech, O'Reilly's Web 2.0, Pubcon, Shop.org, FOO Camp (O'Reilly),
24 Search Engine Strategies, Search Marketing Expo ("SMX"), and others. In 2003 I worked with
25 industry colleagues and search experts to cofound the Search Engine Marketing Professional
26 Organization ("SEMPO"), now part of the Digital Analytics Association ("DAA"). I spent two
27 years on the Board of Directors for SEMPO and served as Chair of the Membership Committee.
28

5. As a result of my search industry work on discovering and reporting on click fraud within paid search advertising, Urchin Web Analytics engaged my services to help them understand the techniques used in website traffic analysis to identify, isolate, and report on fraudulent and invalid click activity within Pay Per Click (“PPC”) campaigns.

6. Urchin Web Analytics was acquired the following year by Google, and subsequently re-branded as Google Analytics.

7. I was similarly engaged as an independent consultant by Microsoft during its pre-launch development of the Microsoft adCenter (later re-named Bing Ads) platform, to advise on how to perform ad traffic analysis in order to detect and address invalid click activity

8. I was similarly engaged as an independent consultant by Fair Isaac Corporation, creators of the FICO score, to advise on traffic analysis for the purpose of click reporting technology development, which led to an industry-first click fraud reporting study between Fair Isaac and SEMPO in 2006. My curriculum vitae, which includes my publications for the last ten years, is attached hereto as **Exhibit A**.

9. In addition to providing internet and search marketing consulting, I have provided litigation support as an internet and search/digital marketing expert witness for litigation matters involving various aspects of digital marketing including search engine optimization (“SEO”), digital content discoverability, paid search, and related subject areas. A list of the cases for which I have provided testimony in the last five years is attached hereto as **Exhibit B**.

10. In connection with the above-captioned matter, I have reviewed various information, documents, and testimony provided by and/or produced by Dreamstime.com LLC (“Dreamstime”) and/or Google LLC (“Google”) (hereinafter referred to as the “Parties”) to perform the following analyses for the period of late 2015 through September 30, 2018:

- a) Provide an assessment of specific actions taken by Google and determine whether these actions could have been, and/or are likely to have been, responsible for causing losses of Google organic search traffic to www.dreamstime.com;

b) Provide an assessment of whether any actions taken by Dreamstime could have been, and/or are likely to have been, responsible for causing a loss of organic traffic to www.dreamstime.com; and

c) Identify what information Google knew, or had in its possession and could have reasonably and readily accessed, regarding any actions taken on its part that could have been or were responsible for causing a loss of Google organic search traffic to www.dreamstime.com.

11. I prepared a report in connection with the assessments noted above, which report was attached as Exhibit P to the Lehman Declaration in support of Google's Motion for Summary Judgment. The relevant documents pertaining to the opinions I have provided herein are attached hereto as indicated. Based upon my review, knowledge, background, training, and experience, I set forth the following:

II. SUMMARY OF WHAT WE KNOW

12. There has been much back and forth in this matter on numerous issues. While I endeavor to provide responsive explanations of my analysis in the paragraphs that follow in response to Mr. Lehman's most recent declaration, I believe it is important at this stage to summarize certain facts and illustrate what I believe, based on my experience, training, and analysis of materials presented to me, to be striking contradictions in the information provided and the various positions taken by Google as this matter has unfolded during the course of this litigation.

13. The Dreamstime.com website sells stock images. Its website's success in organic search is dependent upon its appearance in search results for various queries/query intents including and related to stock images and stock photos, as well as topically related terms.

14. Dreamstime.com saw a significant decline in Google organic search traffic beginning in or around November of 2015, as recorded by Google Analytics. Google does not dispute that its Google Analytics data which it provided to Dreamstime with respect to Dreamstime.com began to show significant Google organic traffic losses at that time.

1 15. On or about [REDACTED] (according to documents and testimony provided by
2 Google) Google launched a change to one of its on-page scoring algorithms that determines [REDACTED]
3 [REDACTED]. Specifically, it changed how it determined [REDACTED]
4 [REDACTED] This is known internally to Google as
5 the [REDACTED]/Salient Terms scoring system.

6 16. Neither of Google's two public-facing search representatives, John Mueller and Gary
7 Illyes, testified to having any knowledge of the existence of this scoring system maintained by
8 Google; hence, the majority of my responses herein are to Mr. Lehman's deposition and declaration
9 testimony.

10 17. Google's process for preparing to implement the above-referenced change to its
11 Salient Terms scoring system in October and November of 2015 involved performing an extensive
12 pre-launch experiment to analyze how this change would impact, according to Google, "randomly
13 selected" webpages from its index – [REDACTED]
14 [REDACTED].

15 18. Documentation which details the result of this experiment shows that not only did
16 Google choose the Dreamstime.com website as one of the "randomly" chosen URLs for the
17 experiment, but this documentation confirms that the identified, measured impact that this change
18 had on the Dreamstime.com webpage was explicitly described and labeled to be a [REDACTED] loss" by [REDACTED]
19 [REDACTED].

20 19. [REDACTED]
21 [REDACTED]
22 [REDACTED]
23 [REDACTED]
24 [REDACTED]
25 [REDACTED]
26 [REDACTED]
27 [REDACTED]
28 [REDACTED]

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1 [REDACTED],

2 [REDACTED]

3 [REDACTED]

4 [REDACTED]

5 [REDACTED]

6 [REDACTED]

7 [REDACTED]

8 [REDACTED]

9 [REDACTED]

10 [REDACTED]

11 [REDACTED]

12 [REDACTED]

13 [REDACTED]

14 [REDACTED]

15 [REDACTED]

16 [REDACTED]

17 [REDACTED]

18 [REDACTED]

19 [REDACTED]

20 [REDACTED]

21 20. [REDACTED]

22 [REDACTED]

23 [REDACTED]

24 21. When asked in his deposition on February 7, 2020 about how the salience scores of
25 terms on a page impact ranking, Eric Lehman, a Software Engineer at Google, declared under oath
26 that [REDACTED]

27 [REDACTED]

28 [REDACTED] (Exhibit E at 82:24-83:1.)

22. However, in a recently submitted declaration and in stark contrast to his earlier statements, Mr. Lehman minimizes his prior statement, claiming “a ‘loss’ for salient terms purposes would not necessarily result in a change in ranking for a particular webpage.” (Lehman Dec. ¶ 40.) We are left to ask, do terms with a higher salience score (weight) [REDACTED] of a webpage, [REDACTED] [REDACTED]? Mr. Lehman’s deposition testimony clearly already answered these questions ([REDACTED]), but now his self-serving declaration contradicts his prior testimony. As noted below, his current declaration makes no sense in light of the function of the salience score as Lehman himself previously described – that based on his understanding and knowledge of Google search as a Software Engineer who works directly on the Salient Terms scoring system – [REDACTED]

23. During his deposition on February 7, 2020, to repeat, Mr. Lehman testified under oath that [REDACTED] [REDACTED] Exhibit E at 82:24-83:1.)

24. Yet in his more recent declaration, Mr. Lehman changes his position on this topic significantly. His most recent declaration claims: [REDACTED] [REDACTED] (Lehman Dec. ¶ 53.)

25. By “[REDACTED]” we must ask, does Lehman mean to refer to the fact that [REDACTED] [REDACTED]? Because that was the correlation he testified to in his deposition as quoted above. Lehman now purports to claim this correlation no longer exists. However, it stands to reason that if something is “[REDACTED]” that fairly clearly designates it as a simple or necessary correlation.

26. Mr. Lehman claims I have a “serious misconception” about how Google Search works when I state that [REDACTED]

Perhaps Mr. Lehman misunderstands my statements on this matter. To be clear, by “essential,” I am referring to the fundamental truth of search that a search engine, such as Google, cannot determine a given webpage’s relevance to a query without a system for determining [REDACTED]. As I describe in detail in my report and below, Google calls this system the [REDACTED]/Salient Terms scoring system. Mr. Lehman does not explain what he means by “essential;” in the absence of that explanation, I assume he misunderstood my use of the word.

27. Mr. Lehman continues to state that I am [REDACTED] (Lehman Dec. ¶ 52) [REDACTED]. I think Mr. Lehman is grossly wrong to mischaracterize my opinion, as I certainly did not use the term [REDACTED] in my discussion of the Salient Terms scoring signal – rather, I provided a descriptive illustration of the direct influence that Google’s salient terms scoring signal has on a webpage’s ranking, according to Mr. Lehman’s own testimony, under oath, which forms the basis for my illustration:

28. “[REDACTED]” [REDACTED] (Exhibit E at 82:24-83:1.).

29. Google, through Mr. Lehman’s declarations, has made various statements throughout this litigation claiming that neither Google nor anyone else can go back in time and attempt to identify what may have contributed to a website’s ranking (and subsequent traffic) losses in the past. Specifically, they repeat: “This [] means that neither Google nor anyone else is in a position to pinpoint the specific reasons why, at some point in the past, a particular website ranked where it did within search results or to explain in detail why its rank may have fluctuated over time in response to particular search queries.” (Exhibit G at 4:5-8.)

30. This is absurd. SEO professionals do this – specifically, analyze and pinpoint various correlative and causal factors contributing to a website’s historical performance in organic search –

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1 on a regular basis. In fact, Google itself, in this litigation, admits to using [REDACTED]
2 [REDACTED]
3 [REDACTED]
4 Google has testified that [REDACTED]
5 [REDACTED]
6 [REDACTED].

7 31. Not only does Google admit to having the ability to [REDACTED]
8 [REDACTED] but Mr. Lehman expressly
9 stated in his deposition that he used [REDACTED]
10 [REDACTED]
11 [REDACTED]
12 [REDACTED]
13 [REDACTED]. Mr. Lehman testified that he
14 used [REDACTED]
15 [REDACTED]
16 [REDACTED]
17 [REDACTED] (Exhibit
18 E at 21:24-22:4.)
19

20 [REDACTED]
21 [REDACTED]
22 [REDACTED] (Exhibit E at 22:9-12.)
23

24 32. As a direct result of [REDACTED]
25 [REDACTED]
26 [REDACTED]
27 [REDACTED]
28

¹ [REDACTED]

1 [REDACTED]
 2 [REDACTED]
 3 [REDACTED]
 4 [REDACTED]
 5 [REDACTED]
 6 [REDACTED].

7 33. In Mr. Lehman's most recent declaration, he now testifies that [REDACTED]

8 [REDACTED]

9 [REDACTED] But strangely, in his deposition testimony in

10 February, despite having [REDACTED]

11 [REDACTED]

12 [REDACTED]

13 [REDACTED]

14 [REDACTED]

15 [REDACTED] [REDACTED] [REDACTED] [REDACTED]

16 [REDACTED] I find this

17 difficult to believe.

18 34. It would seem to me a more reasonable explanation is that there is no [REDACTED]

19 [REDACTED]. In fact, *Google's own endorsed SEO*

20 *expert* personally determined that the Dreamtime website did *not* in fact have any backlink issues

21 in the website and backlink analysis he performed for Dreamtime on behalf of Google – which

22 was, according to Google's own internal emails, for the discreet purpose of diagnosing

23 Dreamtime's traffic drop in Google Organic Search. His conclusion was, that "[a]pproximately

24 90% [of the backlinks] are without (machine-evaluated) complaint. This is a comparatively VERY

25 good signal. Problems with the backlinks should not be very likely with Google." (Exhibit M at

26 P_0015480).

27 _____

28 ² [REDACTED]

³ [REDACTED]

1 35. There is a clear a disconnect between what Google says is impossible for anyone to
 2 do (identify specific reasons why a website's ranking has fluctuated over time, or "historically"),
 3 and what Google itself does [REDACTED]
 4 [REDACTED] There is also a question of
 5 what Google means by the concept of "at some point in the past" – perhaps Googlers only have a
 6 split-second window in which to use these tools, before the inquiry is deemed to be "at some point
 7 in the past"? What is the past? The previous hour? Previous week? Previous year? Mr. Lehman, in
 8 February of 2020, [REDACTED] before testifying about why a website (Dreamstime)
 9 started to lose organic search traffic in 2015.

10 36. If there is an expiration date on the relevance of the information Google does in fact
 11 have in its possession [REDACTED] about why a website is
 12 appearing where it is (or isn't) in organic search, then why would Mr. Lehman have [REDACTED]
 13 [REDACTED], in preparation for his deposition in this matter? Particularly when
 14 one of the main issues in this case is a change that Google made to its salience scoring system – *in*
 15 *2015*?

16 37. Again, after repeating the claim that no one can possibly go back in time to identify
 17 the specific reasons why a site did or didn't rank in certain positions for certain queries... Google
 18 simultaneously (actually, in the same document) makes a definitive statement about precisely what
 19 is and isn't contributing to Dreamstime's loss of organic search ranking and traffic: [REDACTED]
 20 [REDACTED]

21 [REDACTED] (Lehman Dec. ¶ 66.).

22 38. We are left to wonder – is Google only able to make that determination based on
 23 Dreamstime.com's appearance in organic search at the moment Mr. Lehman made his analysis in
 24 preparation of his April declaration, or is he speaking about the organic ranking and traffic drop that
 25 began in November of 2015, when Google changed their Salient Terms scoring signal? Clearly, he
 26 cannot be speaking of the latter if, as he previously verified under oath, Google couldn't go back in
 27 time and "pinpoint the specific reasons why, at some point in the past, a particular website ranked
 28 where it did within search results." (Exhibit G at 4:5-7.)

39. In addition to these apparent contradictions, we also have the issue of Google miraculously discovering a “bug” – after depositions were finished – purporting to show that the aforementioned change to the scoring of salient terms on the Dreamstime website (Figure 1) didn’t happen, after all. It was just a big mistake. Yes, that is correct, apparently now at the final hour in this litigation, Google discovered this bug which – when fixed – magically returned the salience scores for the Dreamstime webpage in question to their pre- [REDACTED] levels.

40. Never mind the fact that Google launched this change to its Salient Terms scoring signal (which affected over [REDACTED] of webpages in its index, according to Mr. Lehman) after performing a *thorough evaluation and approval process*, which included conducting experiments to see how this proposed algorithmic change would impact Google’s organic search results; it also analyzed example webpages from its index to identify the specific impact that this proposed change would have had on these webpages. At the point at which Google performed the experiment, the identified impact to the Dreamstime.com webpage was negative – [REDACTED] [REDACTED] – as a result of the re-ordering of the salient terms on the page.

41. When Google launched this change to their search engine, Google had not identified any “bugs” in the data output by its experiments, or by any of its Search Analysts involved in the experiment launch report. This signal change was launched based on [REDACTED]

42. Nor did Google, between the launch of this signal change (November 2015) and Google’s response dated December 4, 2019, identify any “bugs” in the experiment data or launch report which served as the basis for the [REDACTED] change.

43. Google also didn’t find this “bug” when preparing and verifying (by *Lehman*) its responsive documents for its December 4, 2019 response to Dreamstime’s Interrogatory No. 1 dated March 11, 2019 (in which Google searched for algorithm-related documents mentioning Dreamstime), the experiment or launch report data it found, in which the Dreamstime.com website was used as an example website.

1 44. Nor did Mr. Lehman, when preparing for his February 6, 2020 deposition, find any
2 “bugs” in the experiment or launch report data.

3 45. Nor during his deposition, did Mr. Lehman testify to any “bugs” in the experiment or
4 launch report data.

5 46. Magically, after 25-plus hours of deposition testimony of Google search employees,
6 with the majority of this lengthy testimony specifically related to the demotion of the very salient
7 terms [REDACTED] “images” “editorial” and “dreamstime” on Dreamstime’s webpage, Google
8 simply produced a declaration by Lehman dated February 26, 2020 (after the discovery cutoff)
9 stating that lo and behold, the experiment data showing the negative impact to Dreamstime’s
10 website was actually wrong due to a “bug.” We are now expected to believe that these terms were
11 never demoted ([REDACTED])

12 [REDACTED]
13 [REDACTED]
14 47. The remainder of this declaration serves to reiterate, and at certain points clarify,
15 analyses and opinions set forth in my prior expert report.

16 17 **III. GOOGLE ORGANIC SEARCH RESULTS**

18 48. Google’s organic or “free” search results rely on its various proprietary algorithms to
19 both interpret the meaning of a user’s search (query), and then to surface and order (rank)
20 documents (webpages) within its search results in response to the user’s query.

21 49. In the context of ranking search results in response to a user query, there is a
22 distinction between the process of “query interpretation” – whereby Google employs its search
23 algorithms to interpret a user’s search “intent” (including identifying the category of information a
24 user may be looking for, as well as its broadness or specificity) – and the subsequent process
25 whereby Google identifies, and then orders or “ranks,” relevant webpages in its search results after
26 it has determined the intent of the query. Attached hereto as **Exhibit C** is a true and correct copy of
27 the Google webpage the “Meaning of your Query,” which was produced with my production at
28

1 Bates number JS0018 and is publicly available at

2 <https://www.google.com/search/howsearchworks/algorithms/>.

3 50. Once Google determines a query's intent (what a user is looking for or attempting to
4 achieve based on the keywords they used to perform a search), Google establishes a list of "salient
5 terms" [REDACTED] explained by Google Software Engineer Eric Lehman during his
6 deposition, which I attended:

7 [REDACTED]
8 [REDACTED]
9 [REDACTED]
10 [REDACTED]
11 [REDACTED]

12
13 Attached hereto as **Exhibit D** are true and correct copies of the relevant pages from the
14 February 7, 2020 deposition of Google through its Rule 30(b)(6) witness Eric Lehman ("Lehman
15 30(b)(6) Deposition"), which I personally attended, at 41:12-23.

16 51. As is generally understood in the search engine and SEO industry, and as Google has
17 testified, a [REDACTED]
18 [REDACTED]
19 [REDACTED]).

20 [REDACTED]
21 [REDACTED]
22 [REDACTED]
23 [REDACTED]
24 [REDACTED]
25 [REDACTED]
26 [REDACTED]
27 [REDACTED]
28 [REDACTED]

Attached hereto as **Exhibit E** are true and correct copies of the relevant pages from the February 7, 2020 deposition of Google Software Engineer Eric Lehman (“Lehman Individual Deposition”), which I personally attended, at 44:5-7; 46:8-10; 47:10-14; 47:23-24; 49:5-11; 49:25.

52. Google’s mission to “deliver the most relevant and reliable information available” underscores its position that its results must first and foremost be relevant, Attached hereto as **Exhibit F** is a true and correct copy of the Google webpage “How Search works – Our Mission,” which was produced with my production at Bates range JS0009-JS0015 and is publicly available at <https://www.google.com/search/howsearchworks/mission/>.

53. Google repeatedly asserts in this matter that it algorithmically considers other factors in ranking webpages, including assessments of the quality of content on the page (with “quality” signals) as well as the usability of the page. But Google’s mission is relevance, and for an indexed page to appear in Google’s search results, Google’s ranking system, by its own description, requires that the webpage be relevant to the query in order for it to be returned in search results for that query. The most “usable” webpage that is not relevant to a query is not going to be returned within search results for a query simply because of its high usability, nor is the “highest quality” webpage – if it is not a relevant result.

Google’s System for Scoring the Salience of Words on a Page, Referred to Internally as:

The [REDACTED] /Salient Terms” Signal

54. As is generally understood in the search engine and SEO industry, and as outlined above, in order for Google to determine whether a webpage is relevant to a query and/or a query’s intent (and therefore make that document available to be returned and ranked in response to those queries when a user performs a search), [REDACTED]

1 55. [REDACTED]

2 [REDACTED] This system's function and effects were not at
3 any point disclosed to Google's customers, Dreamstime or the public.

4 56. This salient terms scoring signal is referred to as a "[REDACTED]" according to
5 Google. (Exhibit E, Lehman Individual Deposition at 72:14-73:10; *see also*, Exhibit D, Lehman
6 30(b)(6) Deposition at 39:24-41:10.)

7 57. According to Google, [REDACTED]
8 [REDACTED]. " (Exhibit E, Lehman
9 Individual Deposition at 78:21-23). Further, Google explains that the system's job is to "[REDACTED]"
10 [REDACTED]
11 Attached hereto as **Exhibit G** is a true and correct excerpted copy of Google's December 4, 2019
12 Second Amended Responses to Dreamstime's First and Second Set of Interrogatories with the
13 quoted text at 7:6-7. Exhibit G was also marked as Exhibit 222 at the deposition of Dale Nil, which
14 I personally attended in this matter.

15 58. According to Google, the [REDACTED] signal then [REDACTED]
16 [REDACTED]
17 [REDACTED] (Exhibit E,
18 Lehman Individual Deposition at 76:10-11.)

19
20 *Importance of The Salient Terms Scoring Signal in Determining a Given Webpage's Appearance*
21 *and Ranking in Search Results*
22

23 59. According to Google, [REDACTED]
24 [REDACTED]
25 [REDACTED]
26 [REDACTED]
27 [REDACTED]
28 [REDACTED]

1 (Exhibit E Lehman Individual Deposition at 82:24-83:1.)

2 60. [REDACTED]

10 How the [REDACTED] /Salient Terms Signal Process Was Applied to Dreamstime.com

12 61. [REDACTED]

17 62. [REDACTED]

21 63. [REDACTED]

23 64. [REDACTED]

1 [REDACTED]
 2 [REDACTED].
 3 65. [REDACTED]
 4 [REDACTED]
 5 [REDACTED]
 6 [REDACTED]. (See **Exhibit E**, Lehman
 7 Individual Deposition at 82:24-83:1.)

8 Google's Process for Modifying its Search Algorithms

9 66. In its Second Amended Responses to Plaintiff Dreamstime's First and Second Set of
 10 Interrogatories, Google describes its process for making changes to its search algorithms and the
 11 signals it relies on (such as [REDACTED]), which includes testing, reporting, and generating approval
 12 requests:

13 *"Google rigorously tests all such proposed changes, prepares reports*
 14 *about the observed effects of those tests, and prepares approval requests*
 15 *for the changes that it decides should be implemented. Those reports and*
 16 *approval requests identify example websites that would be affected by a*
 17 *given algorithmic change."*

18 (**Exhibit G**, Google's December 4, 2019 Second Amended Responses at 6:22-25.)

19 **IV. GOOGLE'S ACTIONS**

20 [REDACTED]
 21 [REDACTED]
 22 67. In its Second Amended Responses to Plaintiff Dreamstime's First and Second Set of
 23 Interrogatories and the "Exhibit 6" attached thereto, Google details how it proposed, tested, and
 24 then launched a major change to the [REDACTED] scoring signal, a change referred to as [REDACTED]
 25 which changed how [REDACTED]
 26 [REDACTED]. Attached hereto as
 27 **Exhibit T** is a true and correct copy of Google's ST Launch Report attached as Ex. 6 to Google's
 28 December 4, 2019 Second Amended Responses.

68. The [REDACTED] change had such a significant impact on how Google ranked webpages within its search results that the approval of Google’s then Head of Core Search and Google Fellow, Amit Singhal, (also known on the Google campus as “King of the Ranking”) was obtained before this change could be launched live in Google Search. A true and correct copy of the [REDACTED] produced by Google in this Litigation was attached as part of Google’s December 4, 2019 Second Amended Responses, **Exhibit T** at 40-80 (Ex. 6); *see also* **Exhibit D** Lehman 30(b)(6) Deposition at 45:7-16. Mr. Lehman attempts to downplay Mr. Singhal’s approval in the context of this algorithm change – yet he does not provide evidence to show the actual number of approvals Mr. Singhal was involved in for any relevant timeframe to support his claim.

69. As described above, part of the process by which Google tests and ultimately approves changes to its search algorithms includes identifying “[REDACTED] [REDACTED]”. When asked in discovery for information and documents indicating whether Google knew of any changes to its search algorithms (*i.e.*, changes “that may affect the contents or ordering of search results”) that could have impacted, or did in fact impact, Dreamstime’s website, Google not only produced a document showing a direct, verified impact to Dreamstime’s website as a result of [REDACTED] but the document shows that the change it made to this ranking signal had a direct, measurable, and *expressly negative impact* on the Dreamstime webpage Google identified in its testing. In fact, Google’s analyst [REDACTED] [REDACTED].” (**Exhibit G**, Google’s December 4, 2019 Second Amended Responses at pp. 6:24-25; 6:19-7:17; and **Exhibit T** at 47-48.)

70. The page in question was one of Dreamstime’s many individual stock photo pages (generally referred to as “product pages”). In Google’s pre-launch experiment of its change to its Salient Terms scoring signal, Google chose, out of its billions of indexed pages on the web, one of Dreamstime’s product pages to test its new ranking algorithm change to see how the page would be impacted. [REDACTED]

1 [REDACTED]
 2 [REDACTED]
 3 [REDACTED] hereto as **Exhibit H**.

4 71. In detailing the negative impact to Dreamstime’s webpage, Google states, “The
 5 report indicates that this particular example webpage constituted a ‘loss’ because it would result in a
 6 different set of salient terms with more numbers than English words. It indicates that certain terms –
 7 ‘pink flamingo,’ ‘download,’ ‘designers,’ ‘5611,’ ‘615 771,’ ‘and ‘flamingo couple’ –were
 8 identified as the most salient terms on the page, whereas ‘dreamstime,’ ‘editorial,’ ‘birds,’
 9 ‘wildlife,’ ‘17442301,’ and ‘images’ had previously been listed as the most salient terms. (**Exhibit**
 10 **G**, Google’s December 4, 2019 Second Amended Responses at 7:12-17.)

11 72. As described above, the “salience scores” of terms on an individual webpage, as
 12 measured by the [REDACTED] scoring signal, [REDACTED]
 13 [REDACTED]
 14 [REDACTED]
 15 [REDACTED]
 16 [REDACTED]
 17 [REDACTED]
 18 [REDACTED]
 19 [REDACTED]
 20 [REDACTED]
 21 [REDACTED] *to the* [REDACTED] *change*
 22 (“Base Salient Terms”) and then shows the change in salience weights of these same terms *after the*
 23 [REDACTED] *change was made* (“Experimental Salient Terms”):
 24
 25
 26
 27
 28

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Figure 1



73. To reiterate the importance of this, in testimony on this matter, Google explicitly stated: [REDACTED]

[REDACTED] (Exhibit E, Lehman Individual Deposition at 82:22-83:1.)

74. [REDACTED]
[REDACTED]
[REDACTED] Google attempts to minimize the impact to Dreamstime without evidence: “This discrete modification, which only affected one of the hundreds of signals that affect Google’s search results, did not necessarily impact other webpages within Dreamstime’s website, and it almost certainly did not cause Dreamstime’s website to decrease in search rank position overall or with respect to the Listed Queries.” (Exhibit G, Google’s December 4, 2019 Second Amended Responses at 7:18-21.)

1 75. This explanation is misleading and misguided for a number of reasons. First, it
 2 appears Google is attempting to downplay the significance of its Salient Terms signal to its ranking
 3 of webpages, by referring to it as merely one of “hundreds of signals” that affect its organic search
 4 results. As has been described above, Google accounts for [REDACTED]

5 [REDACTED]
 6 [REDACTED]
 7 [REDACTED]
 8 [REDACTED]
 9 [REDACTED]
 10 [REDACTED]
 11 [REDACTED]
 12 [REDACTED]

13 76. Second, when Google states that this change to its ranking signal, “did not
 14 necessarily impact other webpages within Dreamstime’s website” Google is avoiding the basic UX
 15 (user experience) principle behind e-commerce website design – that the vast majority of e-
 16 commerce websites use, as an accepted best practice, the same webpage template for their entire
 17 inventory of product pages at the product page level. In *UX for Dummies*, Kevin P. Nichols and
 18 Donald Chestnut define outline this widely accepted e-commerce site development best practice:

19 “One of the benefits of the UX design process is that UX design aims to
 20 create an underlying system to support the overall experience: a system
 21 where pages that are similar to one another in content and function can be
 22 supported by the same underlying system, called a template. Developing
 23 an experience that leverages a templated system of pages will reduce the
 24 level of complexity in the design and production process (not every page
 25 will need to be created uniquely) ... During the later stages of the UX
 26 design process, templates are used over and over again, as the site is
 27 populated with a variety of different content.”
 28

1 Attached hereto as **Exhibit I** and produced with my production at Bates range
 2 JS0045-JS0048 are true and correct copies of the relevant pages from the book UX For
 3 Dummies, pp. 297; 341-342.

4 77. The vast majority of e-commerce websites rely on product page templates for their
 5 individual product pages, whereby the majority of individual product pages on a single website will
 6 generally share much of the same structure, layout and content – and differ only in the specific page
 7 areas that describe unique attributes of the particular product. As the authors of UX for Dummies
 8 explain:

9 “To see template design in action, check out your favorite website, such as
 10 Amazon.com or Target.com. Take a look at the layout of two similar but
 11 different product pages (different TVs, for example). You will probably
 12 notice that the pages are quite similar in structure, including product
 13 placement, use of photographs, navigational placement, rating and
 14 reviews, and so forth. Although each of these pages highlights a different
 15 product, they use the same underlying page template.”

16 See **Exhibit I**, UX For Dummies at pp. 343 (JS0047).

17 78. The authors continue to explain that product page templates are essential to an
 18 overall site’s page template inventory:

19 “Article page/product page (Level 4 or 5): A core part of the template
 20 inventory, this is typically a destination for the user. It is the point at
 21 which she reviews a detailed product listing...”

22 See **Exhibit I**, UX For Dummies at pp. 349 (JS0048).

23 79. Furthermore, when asked at his deposition [REDACTED]

24 [REDACTED]

25 [REDACTED]

26 [REDACTED]

27 [REDACTED]

28 [REDACTED]

1 (Exhibit D, Lehman 30(b)(6) Deposition at 80:23-81:1.)

2 80. [REDACTED]

3 [REDACTED]

4 [REDACTED]

5 [REDACTED]

6 81. Dreamtime's website is no different from a typical e-commerce website. It is first

7 and foremost a commercial website that sells visual content in the form of stock images, photos, and

8 illustrations, often for editorial purposes. These are Dreamtime's "products." As such each of these

9 products, when published to the Dreamtime website, is published on its own "product page," and

10 each individual product page on the Dreamtime website, as is the case with most e-commerce

11 websites, uses the same product page template.

12 82. [REDACTED]

13 [REDACTED]

14 [REDACTED]

15 [REDACTED]

16 [REDACTED]

17 [REDACTED]

18 [REDACTED]

19 [REDACTED]

20 [REDACTED]

21 [REDACTED]

22 [REDACTED]

23 [REDACTED]

24 [REDACTED]

25 83. When Google launched the [REDACTED] change to its Salient Terms signal,

26 Dreamtime's website contained over 30 million product pages – all of which used the same page

27 template as the [REDACTED] webpage that was negatively impacted by this change. By virtue of

28 this fact, the [REDACTED] loss" impact to Dreamtime's [REDACTED] page, along with the change in

1 salience for the template-driven, stock image related terms on the page, would have similarly
 2 impacted every other product page. A true and correct copy of Dreamstime's online archive
 3 showing that as of October 4, 2015, it contained over 30 million product pages is attached hereto as
 4 **Exhibit J**, was produced with my production at Bates number JS0008, and is publicly available at:
 5 <https://web.archive.org/web/20151004003650/http://www.dreamstime.com:80/welcome>.

6 84. While Google states that its modification to the [REDACTED] ranking signal "almost
 7 certainly did not cause Dreamstime's website to decrease in search rank position overall or with
 8 respect to the Listed Queries" (with the listed queries being stock photos, stock photo, and stock
 9 images), Google has provided no evidence whatsoever for the basis of this near certainty. [REDACTED]

10 [REDACTED]
 11 [REDACTED]
 12 [REDACTED] "Almost certain," without some form of data, information, or analysis which
 13 appear to have been readily available to Google to support this conclusion, is simply not supported
 14 by any evidence.

15 85. What is certain, according to documents and testimony provided by Google, is that
 16 the impact of Google's change to [REDACTED] ranking signal to this Dreamstime product page was
 17 identified, quantified, and confirmed in Google's testing. And what is clear, based on Dreamstime's
 18 product page templates (which were and continue to be developed in accordance with universally
 19 accepted and widely implemented e-commerce webpage template practices) – is that the [REDACTED]
 20 change, to the extent that the change was measured and scored as a "[REDACTED] loss" and that it lowered
 21 the salience score of [REDACTED] – affected all of
 22 Dreamstime's 30 million product pages at that point in time, and continued to affect all new pages
 23 Dreamstime would add to its site utilizing the same product page template.

24 86. To date, I have not seen or otherwise been provided with materials to support
 25 Google's claim that the [REDACTED] change "almost certainly did not cause Dreamstime's website to
 26 decrease in search rank position overall." However, it is clear from the underlying documents,
 27 including Google's production and discovery responses, that Google changed its core algorithm in a
 28 specific manner that Google itself identified as directly and negatively impacting Dreamstime's

1 website. And while Google attempts to contend, without evidence, that this change did not
 2 “necessarily” impact other pages on Dreamstime’s website (which in and of itself is an implied
 3 admission that it did negatively impact the page identified), based on the fact that millions of
 4 Dreamstime’s website pages shared the same page template as the [REDACTED] page, by logical
 5 inference from my own expert analysis of Dreamstime’s website design, based on over two decades
 6 performing SEO analyses of websites, it is extremely likely this change made by Google directly
 7 impacted all of Dreamstime’s product pages in a similar manner.

8 **V. DREAMSTIME.COM’S ORGANIC SEARCH TRAFFIC LOSSES**

9 87. I have obtained and reviewed Google Organic Search Sessions reports from Google
 10 Analytics data for the Dreamstime.com website covering the time period of October 1, 2015
 11 through September 30, 2018. Google Analytics is Google’s own website analytics product offered
 12 to webmasters, and its data is wholly maintained by Google. In my analysis, I personally reviewed
 13 Dreamstime’s Google Analytics account, and interviewed Dreamstime officials to verify their
 14 Google Analytics configurations and data to ensure that the settings had not changed in any
 15 meaningful way during the relevant period. At no point in this litigation has Google disputed the
 16 validity or accuracy of the Google Analytics data for the Dreamstime website.

17 88. I have also reviewed Google organic search impression data provided by Google for
 18 searches in which webpages from the Dreamstime.com website appeared in Google organic search
 19 results for the period February 10, 2016 through September 28, 2018. This data was not produced
 20 by Google until after its 30(b)(6) witnesses related to the data had already been deposed, on
 21 February 12, 2020. This data from Google does not include the period prior to February 10, 2016
 22 (which covered the November launch period of the [REDACTED] change and the three months that
 23 followed) due to the fact that Google did not preserve the data. This fact along with the fact that the
 24 Google Analytics sessions and revenue data is the most complete and consistent measure of what
 25 actually happened to Dreamstime’s overall traffic and revenue during the relevant period are why I
 26 have relied upon Google’s Google Analytics data for Dreamstime.com in assessing its organic
 27 traffic losses and subsequent revenue declines. Attached hereto as **Exhibit K** are true and correct
 28

1 copies of the relevant pages from the February 4, 2020 Individual deposition of Dale Nil (“Nil
 2 Deposition”) regarding the preservation of data. (Nil Individual Deposition at 112:8-116:7.).

3 89. It must be noted that Google’s purported data showing clicks and impressions for
 4 Dreamstime.com for all queries is not at all a reliable indicator of actual traffic and revenue to
 5 Dreamstime.com during the relevant time period, as the “clicks” data provided by Google cannot be
 6 accurate if Google Analytics organic session data is correct (and I have no reason to believe it is
 7 not). Lehman claims that the clicks noted in this data show how many users Google sent to
 8 Dreamstime.com during the time period it covers. (Lehman Dec. ¶ 63.) However, a comparison of
 9 the clicks data that Google produced to the total sessions data reported in Google Analytics shows
 10 that the “clicks” reported in the data Google produced in discovery wildly over-states the total
 11 number of sessions that Google’s own Google Analytics reported to Dreamstime.

12 90. For example, on September 15, 2017, data from Google Analytics reported a total of
 13 [REDACTED] Google Organic sessions (users coming to the Dreamstime.com website from Google
 14 Organic Search) on that day, with [REDACTED] of those sessions being generated by New Users. The
 15 [REDACTED] figure represents the total number of sessions on the Dreamstime.com website on that date
 16 attributable to Google Organic Search. (See **Exhibit R** hereto, true and correct copies of Google
 17 Analytics data for September 15, 2017.)

18 91. Yet, Google’s data claims that Google Organic Search sent “clicks” to
 19 Dreamstime.com of over [REDACTED] (See **Exhibit L** hereto, a true and correct
 20 excerpted copy of Google’s clicks data for September 15, 2017 produced in discovery.) This
 21 number is greater than Dreamstime.com’s total Google Organic Search sessions reported by Google
 22 Analytics by a factor of [REDACTED]. Whatever the Google data is attempting to measure, it is not measuring
 23 actual sessions (generated by users who reached Dreamstime’s website) via Google Organic Search
 24 referrals.

25 92. This same discrepancy was true throughout this period of time, where Google
 26 “clicks” data consistently and exceedingly overstates the Google Analytics sessions data, often by
 27 large factors. While it is apparent that Mr. Lehman has a working definition as to what these Google
 28 “clicks” he is referencing purport to measure, this click data clearly does not measure (as Mr.

1 Lehman suggests in his declaration) the number of users “Google sent. . .to Dreamstime’s website
2 from organic search results.” (See Lehman Dec. ¶ 63.) There is no evidence from Google that these
3 “clicks” they are reporting are representative of actual website visits (measured in sessions) to
4 Dreamstime.com, as Google’s own Google Analytics data shows a vastly lower number of sessions
5 – and at no point in this litigation has Google disputed the validity of their own Google Analytics
6 data for the Dreamstime.com website.

7 93. As a result, Lehman’s statement in his declaration in support of summary judgment
8 (*see* ¶ 63) that “Google sent more users to Dreamstime’s website from organic search results in
9 September of 2018 than it had in February 2016” is based upon unreliable data that is in direct
10 conflict with Google’s own Analytics data by a wide margin.

11 94. Figure 2 below shows Dreamstime’s Google Organic Search Session data for the
12 October 2015 through September 2018 time period. The graph illustrates the overall downward
13 trend of Google organic session data for Dreamstime.com during this time period. I have attempted
14 to show, with the red arrow, the point at which Google launched the change to its Salient Terms
15 signal in November 2015, and how it correlates with Dreamstime’s organic traffic decline:



1 **VI. DREAMSTIME'S ACTIONS**

2 95. The direct correlation between the Dreamstime loss of rankings and traffic in Google
3 organic search and the precise date Google changed its Salient Terms signal in a manner that
4 negatively impacted Dreamstime's global product page template (and the fact that all 30-plus
5 million product pages used this template) provides the only reasonable, evidence-based explanation
6 for the cause of Dreamstime's loss of Google organic search traffic. Google not only implemented a
7 change to its search engine that directly impacted Dreamstime's website, but Google itself, before
8 launching the change, ran an experiment that confirmed that their algorithm change had an
9 expressly significant negative impact on Dreamstime.

10 96. This data notwithstanding, I examined information provided by both Dreamstime
11 and Google relating to potential non-Google causes for the above referenced drop in Dreamstime's
12 organic traffic and could not identify any other potential cause of the organic traffic drop.

13 97. In the course of my examination, I noted that Google itself eliminated many potential
14 causes for Dreamstime's loss of organic traffic. Google reviewed its data related to manual actions
15 and penalties on Dreamstime's webpages and concluded that, while certain manual actions were
16 taken, "Google's manual action team has never taken any action or imposed any penalty in regard to
17 Dreamstime's website that would have adversely affected its ranking in Google's search results."
18 (**Exhibit G**, Google's December 4, 2019 Second Amended Responses at pp. 4:12-6:2.)

19 98. Google also asked an SEO consultant, Professor Mario Fischer, to analyze
20 Dreamstime's diminished organic search performance. Google vetted and then provided his
21 analysis to Dreamstime in early November 2016, approximately one year after the [REDACTED]
22 update. Notably, Fischer was not provided any information about [REDACTED] or any other
23 information already known to Google regarding changes Google made to its algorithms that would
24 have impacted Dreamstime's performance. Fischer did identify Dreamstime's product pages as
25 potential sources for its diminished performance, but his only reasoning for this was that their
26 descriptive content was too thin. Attached hereto as **Exhibit M** is a true and correct copy of the
27 certified translation from the Fischer analysis produced by Google in this litigation and previously
28 marked as Exhibit 163.

1 99. This potential cause, too, would later be ruled out by a high-ranking Google
 2 employee, John Mueller, a senior member of Google's Search Relations team. Essentially, Fischer
 3 was counseling Dreamstime to add larger blocks of text into its product pages. Tellingly, a couple
 4 of weeks before Mueller was deposed (a deposition I attended in person), Mueller replied in
 5 agreement to a Twitter thread suggesting that blindly stuffing text into an e-commerce product page
 6 would not improve a website's ranking. At his deposition, Mueller [REDACTED]

7 [REDACTED]
 8 [REDACTED] Attached hereto as **Exhibit N** are true and correct
 9 copies of the relevant pages and exhibits from the February 12, 2020 deposition of John Mueller
 10 [pp. 8:9-9:18; 174:2-178:7; Exhibit 308].

11 100. Fischer also performed an analysis of Dreamstime's "backlinks," another possible
 12 purported cause for a drop in organic traffic due to Google's efforts to reduce website ranking
 13 benefits achieved through link schemes, and this was also eliminated as a potential cause for
 14 Dreamstime's organic traffic loss. Using his own tools to measure the percentage of Dreamstime's
 15 backlinks that were questionable versus those without complaint, Fischer found these percentages to
 16 be "a comparatively VERY good signal" in Dreamstime's case. He concluded, "Problems with
 17 backlinks should not be very likely with Google." See **Exhibit M**, Fischer Analysis at P_145480;
 18 *see also*, attached as **Exhibit O**, a true and correct copy of a Google support webpage titled "Link
 19 Schemes," which was produced with my production at Bates range JS0023-JS0025 and is also
 20 publicly available at <https://support.google.com/webmasters/answer/66356?hl=en>.

21 **VII. WHAT GOOGLE KNEW, OR COULD HAVE KNOWN, BUT FAILED TO**
 22 **DISCLOSE**

23 101. As of at least [REDACTED] Google had in its possession documentation that
 24 showed that a search algorithm change it had pushed live to its search engine had a direct, and
 25 negative, impact on the Dreamstime website — [REDACTED]

26 [REDACTED]
 27 [REDACTED]

1 102. In addition, Google has testified that it had access to internal research [REDACTED]

2 [REDACTED]
 3 [REDACTED]
 4 [REDACTED]
 5 [REDACTED]
 6 [REDACTED]
 7 [REDACTED]
 8 [REDACTED]
 9 [REDACTED]
 10 [REDACTED]
 11 [REDACTED]
 12 [REDACTED]
 13 [REDACTED]
 14 [REDACTED]

15 (Exhibit E, Lehman Individual Deposition at 21:24-22:4; 22:9-12.)

16 103. [REDACTED]

17 [REDACTED]
 18 [REDACTED]
 19 [REDACTED]
 20 Google's Data Regarding Dreamtime's Organic Traffic Loss Has
 21 Not Been Preserved, is Unavailable, and/or Google Claims is Corrupt

22 104. Google has, coincidentally, also failed to manage the very small amounts of data (in
 23 comparison to the volumes of data it manages for itself and its customers), specifically relating to
 24 Dreamtime's organic traffic losses – claiming this data was lost, unavailable, or “corrupt” in
 25 response to Dreamtime's repeated requests for this information. Repeatedly, Google has claimed it
 26 either didn't have data, it deleted data that it in fact did have at one point in this matter, and that the
 27 data it did have is “corrupt” but later changed that explanation to the data was “incorrect” due to a
 28 “bug” in the script written by one of its engineers. And then finally, after months of production

1 including verified responses to interrogatories and four subsequent depositions of Google
 2 employees on these responses (which I personally attended), Google then claimed in yet another
 3 declaration that the data in its responses, upon which all of the deposition testimony was based, was
 4 now too, incorrect. [REDACTED]

5 [REDACTED]

6 [REDACTED]

7 [REDACTED]

8 [REDACTED]

9 105. Given Google's competence and dominance in the realm of data and data reliability,
 10 the facts that all of Google's data losses, unavailability, corruptions, bugs, and/or errors relating to
 11 this matter have not only occurred and persisted, and that these errors have all explicitly benefitted
 12 Google's position in this matter is striking.

13 *Google's Data Storage & Analysis Capabilities*

14 106. Google is a company entirely reliant on capturing, storing, and managing vast
 15 amounts of data, and its success relies on entirely the accessibility and reliability of this data in
 16 order to develop, maintain and monetize its various search products – from serving search results in
 17 Google Organic Search to ad targeting for its Google Ads products – and to develop and monetize
 18 its entire suite of offerings for end users and organizations.

19 107. Since initially launching as a standalone web search engine, Google has evolved into
 20 a global leader in scalable cloud data storage and analysis solutions for enterprise businesses with
 21 its numerous cloud solutions – including its Google Cloud Storage platform and BigQuery data
 22 analytics products. Google's Cloud enterprise customers include PayPal, HSBC, eBay, Twitter,
 23 Colgate-Palmolive, The Home Depot, KeyBank, and others.

24 108. Google promotes Google Cloud products as “Designed for secure and durable
 25 storage,” and its BigQuery product ensures its customers can “Have peace of mind with BigQuery's
 26 robust security, governance, and reliability controls that offer high availability and a 99.9% uptime
 27 SLA.” Attached as **Exhibit Q** is a true and correct copy of a Google webpage which describes its
 28 BigQuery data warehouse services.

1 109. In addition to Google advertising the reliability of its services for data storage, it also
 2 promotes the speed with which customers can analyze their stored data – boasting that customers
 3 can “easily leverage products like BigQuery to analyze gigabytes to petabytes of data in minutes,
 4 not months.” However, while Google ensures its customers can analyze data in minutes, it
 5 apparently cannot analyze its own data, as requested in this case, for months. I understand that
 6 Dreamstime served Interrogatory No. 1 on March 11, 2019, seeking an explanation from Google of
 7 the reasons for Dreamstime’s drastic decline in organic traffic. But for months, Google delayed its
 8 answer, claiming it was taking a long time to pull its own data. I understand the Court granted an
 9 extension over the delay after Google claimed the data was “corrupt,” but that Google delayed
 10 beyond the length of that extension, as well.

11 *Data Submitted by Google After the Litigation Discovery Cutoff*

12 110. As noted, on February 21, 2020 – after the discovery cutoff in this matter, after
 13 providing thousands of pages of responsive documents and a full week of testimony from multiple
 14 deponents on the data and information set forth herein – Google suddenly notified Dreamstime that
 15 certain “salient terms” data was now wrong, the result of a “bug” in its data set.

16 111. On February 26, 2020, Google offered a declaration of Eric Lehman [REDACTED]
 17 [REDACTED]
 18 [REDACTED]
 19 [REDACTED]
 20 [REDACTED]
 21 [REDACTED]
 22 [REDACTED]
 23 [REDACTED]

24 112. Dreamstime has relied on, and up until February 21, 2020, Google testified as to the
 25 accuracy of, the data provided in Google’s prior verified responses. There is no way to verify [REDACTED]
 26 [REDACTED]. Google’s original response was based upon
 27 Google’s official launch report for a major, core algorithm change that it proposed, tested, and
 28 *launched* to its search engine algorithm which impacted over [REDACTED] of all web pages in Google’s

1 index, requiring approval from top ranking employees in Google search. *See Exhibit G*, Google's
 2 December 4, 2019 Second Amended Responses at 7:4-17 and **Exhibit T** at 47-48.

3 113. Google claims that it performs "rigorous testing" prior to any such launch, and none
 4 of this rigorous testing identified any errors in the original experiment data set that Google provided
 5 on December 4, 2019, upon which it based the launch of this change. [REDACTED]

6 [REDACTED]
 7 [REDACTED]
 8 [REDACTED]. *See Exhibit T*, Google's [REDACTED] attached as
 9 Exhibit 6 to Google's December 4, 2019 Second Amended Responses, at 47-48.

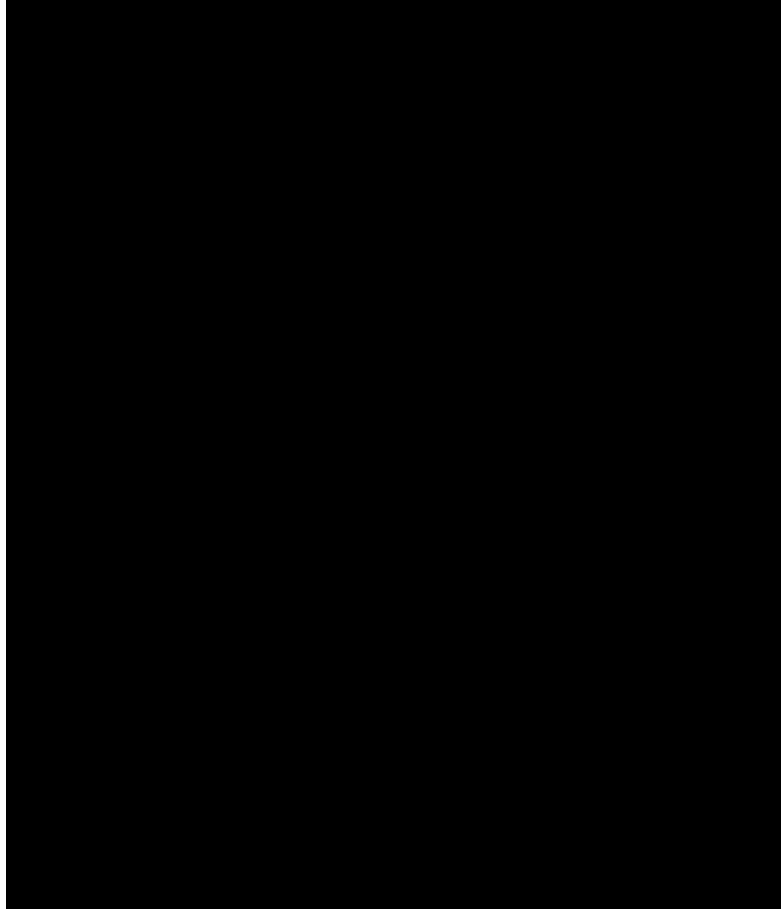
10 114. On the night of February 6, 2020, Google produced another set of records related to
 11 the [REDACTED] algorithm change, and within those records was [REDACTED]

12 [REDACTED]
 13 [REDACTED]
 14 [REDACTED]
 15 [REDACTED]
 16 [REDACTED]
 17 [REDACTED]
 18 [REDACTED]
 19 [REDACTED]
 20 [REDACTED] Attached hereto as **Exhibit S** are true
 21 and correct copies of the relevant documents produced by Google in this litigation at GOOGLE-
 22 DRMSTM00016715-00016742, with the relevant Dreamstime salient terms list at GOOGL-
 23 DRMSTM00016732.

24 115. The data produced by Google after the discovery cutoff attempts to change in
 25 significant ways the ordering of salient terms in [REDACTED] in spite of extensive testimony and
 26 other evidence to the contrary. According to Google its system had a "bug" which, when fixed,
 27 miraculously eliminated the reduction in salience for the terms identified in their first response
 28

(illustrated above in Figure 1), [REDACTED]

Figure 3



116. This dispute notwithstanding, Google acknowledges that its own raters labeled Dreamstime's product page as a [REDACTED] loss" as a result of the [REDACTED] algorithmic change, indicating that Google still in fact measured a negative impact of the change in [REDACTED] Salient terms on the Dreamstime website. [REDACTED]

117. Neither Dreamstime nor myself were provided any access to these additional documents or testimony in discovery to test the veracity of this new data (and Lehman's new

1 account of how it came to be), which serves to benefit Google, as this new data that has
 2 conveniently surfaced suffers from serious inconsistencies with Google's records provided during
 3 discovery – which we did in fact verify, through deposition testimony.

4 5 **VIII. SUMMARY OF MY ANALYSES**

6 118. In response to requests in this matter, Google has produced documents which
 7 identify an algorithmic change that Google implemented in [REDACTED]. These documents
 8 expressly stated that [REDACTED]

9 [REDACTED].
 10 119. The [REDACTED] change was one of a number of algorithmic updates that occurred
 11 during the period, but Google has not produced data related to most of those changes, nor has it
 12 provided testimony as to whether or how these changes may have contributed to Dreamstime's
 13 organic traffic losses, because their testing documents did not specifically mention Dreamstime.

14 120. Google claims it cannot now reconstruct how its algorithms would have ranked
 15 Dreamstime webpages in the past, yet it admitted [REDACTED]

16 [REDACTED]
 17 [REDACTED]
 18 121. The Professor Fischer analysis – the explanation for the loss provided by Google to
 19 Dreamstime in 2016 – was vetted and endorsed by Google, yet his primary recommendation was
 20 contradicted by Google's own witness, John Mueller. *See Exhibit N* Mueller Deposition at 174:2-
 21 178:7; Ex. 308 to Mueller Deposition. In addition, Google now attempts to claim, *without evidence*,
 22 that [REDACTED],

23 after their own consultant eliminated links (specifically, artificial backlinks), as a cause for
 24 Dreamstime's ranking and traffic drops – and after [REDACTED]

25 [REDACTED]. Google and Fischer eliminated multiple obvious non-Google causes for Dreamstime's
 26 organic traffic losses, such as manual changes or penalties and backlink issues – but [REDACTED]

1 122. Based on my examination of information provided by both Dreamstime and Google
2 relating to potential Dreamstime causes for the drop in Dreamstime's organic traffic, and, in
3 concurrence with testimony provided by Google, I could not identify any actions taken on the part
4 of Dreamstime which would have caused of the organic traffic drop.

5 123. In the absence of any such information which would point to specific actions on the
6 part of Dreamstime with regard to its website that would have been likely to have caused their
7 organic traffic declines – and in the presence of a significant amount of information, data, and
8 testimony provided by Google which does directly point to a likely cause, it is my expert opinion
9 that a Google algorithmic change, such as the change to the [REDACTED] Salient Terms signal
10 documented here, is the most likely cause for Dreamstime's organic traffic loss beginning in
11 November of 2015.

12 I declare under penalty of perjury under the laws of the United States of America and the
13 State of California that the foregoing information is true and correct.

14 Executed on May 14, 2020, at Santa Barbara County, California.

15
16 

17 Jessie Stricchiola
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